





# LILY JO FACTORA

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## Technical Skills

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**Languages:** SageMath, Python, R, C++, HTML, CSS.

**Personal Projects:** Personal website.

**Developer Tools:** VSCode, CoCalc.

## Work Experience

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### Archives Work Study Assistant

Portland, OR

Portland Art Museum

October 2023 - Present

- Prepares and organizes Museum Archives for relocation, safeguarding valuable historical materials and enhancing accessibility for future researchers through cataloging and documentation.

### Research Assistant on the $h$ -vector conjecture for graphic matroids

Portland, OR

Reed College Mathematics & Statistics Department

Summer 2023

- Collaborated with other research assistants to investigate the  $h$ -vector conjecture, a well-known problem in matroid theory, a subfield of math at the intersection of combinatorics and graph theory.
- Designed and executed a series of experiments and computational simulations to test conjectures and hypotheses, contributing to the ongoing efforts to solve the problem.
- Gained proficiency in relevant software tools and programming languages to facilitate research tasks.
- Created a well-organized [research poster](#) summarizing project findings and procedures, presented at a summer research showcase to effectively convey complex mathematical concepts to a diverse audience.

### Concierge

Burbank, CA

Castaway Restaurant

Summer 2022

- Demonstrated outstanding customer service with active listening, strong interpersonal skills, and efficiently managed seating using computer software and effective task prioritization.

### Warehouse Inventory Specialist

Los Angeles, CA

Gregory Daniels Fine Arts

Summers of 2018-2021

- Oversaw cleanliness and organization of work areas while managing inventory to maintain accurate records. Handled digital order processing and troubleshooted shipping/receiving issues.

### Volunteer

Tsaile, AZ; San Diego, CA

Sierra Service Project

Summers of 2017-2020

- Completed community-based projects to make homes accessible to historically underserved residents.

## Education

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### Reed College

Portland, OR

BA in Mathematics/Computer Science

Graduation: May 2025

**Activities:** Asian American and Pacific Islander Student Union (Board Member), Photography Club

### Relevant Coursework:

Mathematics: Introduction to Probability and Statistics, Calculus, Introduction to Analysis, Discrete Structures, Linear Algebra, Vector Calculus

Computer Science: Computer Science I (Python), Computer Science II (C/C++), Algorithms and Data Structures